

REMARKS

This amendment responds to the Office Action dated February 5, 2010, in which the Examiner rejected claims 1-17 under 35 U.S.C. § 103.

As indicated above, claims 1, 4 and 5 have been amended in order to make explicit what is implicit in the claims. The amendment is unrelated to a statutory requirement for patentability.

Claim 1 claims an autonomous robot apparatus, claim 4 claims an information processing method for an autonomous robot apparatus and claim 5 claims a computer readable medium having a program for an autonomous robot apparatus. The robot apparatus communicates with a communication apparatus by radio, communicates with a user by non-radio communication and independently determines an action in accordance with an instruction from the user or a surrounding environment. The apparatus, method and program include measuring a quality of communication of radio signals received from the communication apparatus. The action, on the basis of the communication quality measured by the measuring means and the instruction from the user, is then determined. The action determined is then performed. When the communication quality indicates a loss of communication with the communication apparatus, the robot apparatus physically communicates the loss of radio communication to a user via non-radio communication and requests another instruction from the user.

By measuring a quality of communication of radio signals and when the communication quality indicates a loss of communication with a communication apparatus, having the robot apparatus physically communicate the loss of radio communication to a user via non-radio communication and request another instruction from the user, as claimed in claims 1, 4 and 5, the claimed invention provides a robot apparatus, method and program which utilizes functions peculiar to the robot so that a user can be easily notified of a state of communication between the

robot and the communication apparatus. The prior art does not show, teach or suggest the invention as claimed in claims 1, 4 and 5.

Claims 1-17 were rejected under 35 U.S.C. § 103 as being unpatentable over *Glenn, et al.* (U.S. Patent No. 6,763,282) in view of *Fraser, et al.* (U.S. Publication No. 2003/0087607).

Glenn, et al. appears to disclose in Figure 13 a flow chart illustrating the method for controlling the actions of a robot 902. At step 1306, the control station 904 and monitoring personnel can then use information conveyed in the impulse radio signals 908 to control the actions of the robot 902. The control station 904 can use the conveyed information to control the actions of the robot 902 in order to monitor and control the environment within a building 1102. The information obtained by the robot 102 and conveyed in impulse radio signals 908 to the control station 904 can include a wide variety of information including environmental related information, safety related information, inventory related information and surveillance related information (column 24, lines 13-24).

Thus, *Glenn, et al.* merely discloses conveying information to a control station 904 and monitoring personnel via impulse radio signals. Nothing in *Glenn, et al.* shows, teaches or suggests (a) a robot apparatus physically communication loss of radio communication to a user via non-radio communication and (b) the robot apparatus requesting another instruction from the user as claimed in claims 1, 4 and 5, and new claim 21. Rather, *Glenn, et al.* only discloses conveying information by impulse radio signals.

Fraser, et al. appears to disclose in FIG. 2 a mobile vehicle communication processor, located at mobile communication device 110, originates a call. A land-based processor located at a communication node generates a carrier in response to the call. The carrier may be a fixed frequency or a set of frequencies recognizable by the mobile processor. The mobile processor

may generate a carrier. The mobile processor may contain a modem. A carrier may be, for example, a simulated carrier in the case of a digital modem. A carrier may also be, for example, a fixed frequency or set of frequencies in the case of an analog modem [0031].

Thus, *Fraser, et al.* merely discloses communication using radio frequencies. Nothing in *Fraser, et al.* shows, teaches or suggests (a) a robot apparatus physically communicating loss of radio communication to a user via non-radio communication and (b) the radio apparatus requesting another instruction from the user as claimed in claims 1, 4 and 5, and new claim 21. Rather, *Fraser, et al.* merely discloses using radio communication.

A combination of *Glenn, et al.* and *Fraser, et al.* would merely suggest to convey information to a control station 904 via impulse radio signals as taught by *Glenn, et al.*, and to communicate with a mobile communication device via radio communication as taught by *Fraser, et al.* Thus, nothing in the combination of the references shows, teaches or suggests (a) a robot apparatus physically communicating loss of radio communication to a user via non-radio communication and (b) the radio apparatus requesting another instruction from the user as claimed in claims 1, 4 and 5, and new claim 21. Therefore, Applicant respectfully requests the Examiner withdraws the rejection to claims 1 and 4-5 under 35 U.S.C. § 103, and allow new claim 21.

Claims 2-3 and 6-17 recite additional features. Applicant respectfully submits that claims 2-3 and 6-17 would not have been obvious over *Glenn, et al.* and *Fraser, et al.* within the meaning of 35 U.S.C. § 103 at least for the reasons as set forth above. Therefore, Applicant respectfully requests the Examiner withdraws the rejection to claims 2-3 and 6-17 under 35 U.S.C. § 103.

As indicated above, new claims 18-20 have been added and recite additional features.

Applicant respectfully submits that these claims are also in condition for allowance.

Finally, Applicant respectfully requests the Examiner considers the Information Disclosure Statement filed March 2, 2010.

Thus it now appears that the application is in condition for a reconsideration and allowance. Reconsideration and allowance at an early date are respectfully requested.

CONCLUSION

If for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is requested to contact, by telephone, the Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed within the currently set shortened statutory period, Applicant respectfully petitions for an appropriate extension of time. The fees for such extension of time may be charged to Deposit Account No. 50-0320.

In the event that any additional fees are due with this paper, please charge to our Deposit Account No. 50-0320.

Respectfully submitted,

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By 

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